

# Maryland - 2006

## Forest Health Highlights



### The Resource

Maryland occupies a land area of 6,255,800 acres. Forest land comprises 2,565,800 acres of which nearly 76 percent is privately owned. Healthy, productive forests are critical in both urban and rural areas for soil conservation, clean air and water, wildlife habitat, outdoor recreation, and aesthetics. The forest products industry is the largest employer in Allegany and Garrett Counties and the second largest employer on the Eastern Shore.

### Forest Health Monitoring

The Forest Health Monitoring (FHM) Program has two components: a plot network and off-plot survey. The USDA Forest Service Northeastern Research Station Forest Inventory and Analysis Staff administer the plot network in Maryland. The plot network is designed to annually monitor, assess, and report on changes in the long-term condition of trees, soils, lichens, and air quality in forests.

The Maryland Department of Agriculture (MDA) conducts the off-plot survey component of FHM. The objectives of the FHM Program are to delimit, map, and report forest pest problems as a supplement to the FHM plot network. Aerial and ground surveys, data collection, and reporting are conducted in accordance with FHM standards for air operations and GIS.

### Forest Pest Issues

**Gypsy Moth** — Egg mass surveys conducted in the fall of 2005 indicated damaging infestation levels in several counties. In the spring of 2006,

25,454 acres were treated in the northeast, central, and western areas of the State. Maryland experienced 15,793 acres of defoliation, mostly in the western part of the State. Surveys indicate that more treatments will be needed in 2007.

**Hardwood Defoliators** — Fall cankerworm defoliated 6,082 and 1,187 acres of mixed hardwoods in Anne Arundel and Cecil Counties, respectively. In 2005, about 1,000 acres were defoliated in the same area as the 2006 defoliation in Anne Arundel County.

**Bark Beetles** — Since 1993, the Maryland Department of Agriculture has searched for five target European exotic bark beetle species in Maryland as part of a national survey conducted through the USDA APHIS-CAPS Program. These **exotic bark beetles**, which have the potential for causing economic and ecological impacts in the U.S., are sampled with pheromone-baited Lindgren funnel traps. Importers of marble, tile, and granite were identified as possible sources of infested solid wood-packing material. Black light traps and pheromone-baited traps were placed in and around these warehouses from May through October. No target species were trapped in 2006. The **pine shoot beetle**, a European bark beetle, was the target of another USDA APHIS-funded survey conducted in 10 Maryland counties. The pine shoot beetle was first found in western Maryland in 1995. Pine shoot beetles are now found in all five western Maryland counties (Allegany, Frederick, Montgomery, Garrett, and Washington). Significantly more beetles were found in traps in 2006 than in previous years. A Federal quarantine restricts pine material moving from these counties. **Southern pine beetle** populations continue to remain low in the State, but populations usually build up to damaging levels on a 7- to 8-year cycle. The last outbreak ended in 1994.

**Hemlock Woolly Adelgid (HWA)** — HWA remains the major threat to the health of eastern hemlock. Infested hemlocks occur in the metropolitan area between Baltimore and Washington and in natural stands from Harford to Garrett Counties. A joint MDA-DNR HWA Task Force addresses the multidisciplinary needs of the HWA infestation. As part of a Mid-Atlantic multistate survey, 13 plots have been set up in six counties to assess the HWA impact on hemlock stands. The predatory beetle, *Laricobius nigrinus*, was recovered from Rocky Gap in the fall of 2005 and 2006. Recoveries have been so numerous that efforts have begun to establish a field insectary at Rocky Gap with the hopes of harvesting enough *L. nigrinus* in future years to release in other areas of the State.

Two other predatory beetle species, *Scymnus sinuanodulus* and *Sasajiscymnus tsugae*, were released at several different sites with no recoveries made. To date, 2,252 trees on priority sites received soil injections and 218 trees received trunk injections of imidacloprid, an insecticide used for control of HWA. The State worked with The Nature Conservancy using LIP funding to conduct soil injections for 382 trees.

## Special Issues

***Phytophthora ramorum*** — Maryland was one of many States receiving *Phytophthora ramorum*-infested nursery stock in 2004. The MDA Plant Protection and Weed Management Section was responsible for surveying nurseries that received the infected stock and conducting trace-forward inspections for all potentially infected plant material. From 2004 to 2006, the Forest Pest Management Section conducted a USDA Forest Service-funded nursery perimeter survey around those establishments that received host plant material from the same source as the infected plants. Landscape and forest trees around 33 nurseries and forest sites were surveyed for *P. ramorum* infections in 2006.

No infected plants were found in any of the surveys from 2004 to 2006. In addition, nine watersheds near two nurseries that had *P. ramorum*-infested plants in 2004 were sampled in 2006 using leaf baits placed in streams. No *P. ramorum* was found in any of the samples, although numerous recoveries of other *Phytophthora* species were made.

**Emerald Ash Borer** — Infested ash trees illegally shipped by a third party from Michigan were found at a Maryland nursery in August 2003. The infested ash trees had arrived in April 2003, and by August some of these trees were planted as part of the nursery's landscaping business and other ash trees in the nursery became infested. The remaining Michigan trees and all other ash at the nursery were destroyed in August by MDA staff. MDA Plant Protection staff traced forward ash trees sold or used in landscaping jobs by the Maryland nursery and removed all of these ash trees. Additionally, all ash trees within ½ mile of the infested nursery were cut and burned in the early spring of 2004. MDA Forest Pest Management and Plant Protection staff conducted visual surveys and monitored trap trees in areas that had infested ash trees. Trap trees were placed in areas of Garret County near property owned by Michigan residents. In August 2006, EAB larvae were found in one trap tree and one girdled natural tree around the original infestation. A large-scale detection and eradication project is currently underway.

**Sirex Woodwasp** — Trapping was conducted at 28 sites in 12 counties. No collection of the insect was made.

## For More Information



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